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In re Application of: John R. CARLSON *et al.*)
Application No.: 09/491,577) Group Art Unit: 1646
Filed: January 25, 2000) Examiner: J. Murphy
For: DROSOPHILA ODORANT RECEPTORS (as amended))

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TRANSMITTAL OF NEW DRAWINGS TO CORRECT INFORMALITIES


To correct the informalities in the drawings as noted on the PTO-37, applicants submit herewith ten (10) sheets of new drawings containing Figures 1A-1F, 2A-2C, 3A-E, 4A-4D, 5A-5G, 6A-6F.

The three month period of response set in the Notice of Allowability (PTO-37) expires on July 22, 2003 and this submission is on or before the expiration date.

If there are any fees due in connection with the filing of these drawings, the Commissioner is hereby authorized to charge any additional fees due to Deposit Account No. 50-0310.

Respectfully submitted,

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04/03

FIG. 6A

22A.2

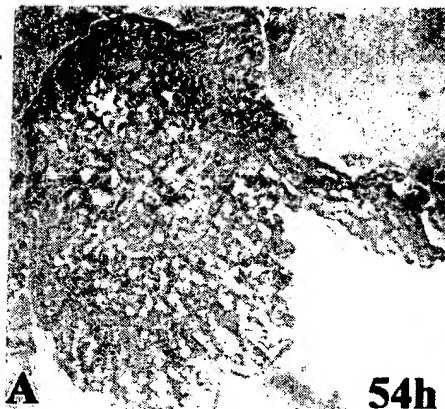


FIG. 6B



FIG. 6C

47E.1

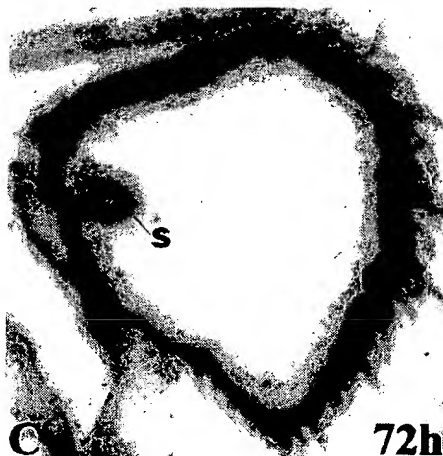


FIG. 6D



FIG. 6E

OS-E



FIG. 6F



FIG. 5A



FIG. 5C



FIG. 5E



FIG. 5B



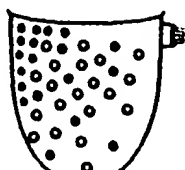
FIG. 5D



FIG. 5F



FIG. 5G



- 47E.1
- 25A.1
- 22A.2

FIG. 4A



FIG. 4B

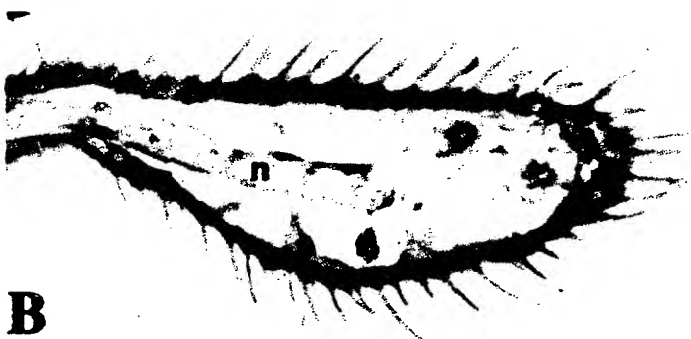


FIG. 4C



FIG. 4D



FIG. 3E

7

59D.1	306	DNEYWF-GRUHYAAIFSCNHTQNRSFQRKMMLEVEQSLKKST--AVAGGMMRIHLDITFFSTLKGAYSLEFTIIIRMRK-----	379
23A.1	303	MVQESF-AELHYANFCSNWDQASARGHMIILAERTKMQL--LLAGNLVPIHLESTYVACWKGAYSFFITLMADRDG-----	377
33B.1	305	LMTMEF-DKLPYATFESSNMLKMDKRYNRSIIILMQLTLVPVN--IKAGGIVGIDMSAFFATVRMAYSRYTIALS-----	375
33B.2	307	LISVEM-NQLTYATYSSNMMSNRYSRIILIFMQLTLAEVQ--IKAGGMIGIGMNAFFATVRLAYSFFITLAM-----	376
33B.3	308	EVAEEL-ERLPYATFESSRMWDQSRDHRFDLITFOTLTGNRGWITKAGGLIELNMAFFATLKMAYSLEAVVVRAKGI-----	384
2F.1	325	RMRTQS-EALCDAFYDCNMIQLPKFKRELLFTLARTQPSL--IYAGNYIALSLETFEQVMRFTYSVFTLLLRK-----	397
22A.1	319	MIIDDC-QEMSNCLEFSDMTSADRRYKSTLVYFLHNLOQPIT--LTAGGVFPISMQTNLAWVKLAFSVVITVKQFNLAERFQ---	397
22A.2	319	MIMDDC-QEMADSLFQSDMTSADRRYKSTLVYFLHNLOQPII--LTAGGVFPISMQTNLNMVKLAFTVVITVKQFNLAERFQ---	397
47E.1	308	NLKTES-ASFEWATYDSPMHESLGAGGASTSICRSLISMNR--AHRGFRITGYFFEANILVRTAMSYITMLRSFS-----	380
46F.1	307	EVTQRS-LDLPHELYKTSMDWDYRSRRRIALLFMORLHSTLR--IRLNPISLGFDMLEFSSVSSFRVLTFILCTVANFHN-----	381
46F.2	310	EVTVQS-SRLCHSYSSQMTGWNRRNRIVILLMMOREFNSPML-LSTFNPTFAFSEAFSGIVNCYSYMFALLKRVNS-----	384
22C.1	307	HVSESS-AAVADVLYDMENYKCDARTRKVILLMLRRSQRAKT--IAPVFFTPSLPALQ--ILSTAGSYITLLKTFL-----	377
24D.1	298	HIMEAC-SNILEARSTFESSHMYGHSVRVQKMTLLMVARAQRYLT--IKIPFFSPSLETLS-ILRFTGSLIALAKSVI-----	369
43B.1	309	EICLEN-NRVAEAVYNVPMYEGTRFRKTLTIFLMOTQHPME--IRVGNVYPMTLAMFQSLNNAYSYMFITMLRGVTGK-----	383
47E.2	327	LVYTQSVEVAQAQAFDINDMHTKSPGIQRDISFVILRAQKPLM--YVAEDFLPFTLGTMYLVKNCYRLLALMQESM-----	400
25A.1	322	AIVDDC-KELEHAILFHSAMWVQDKRYQRVTVIQFLOKLOQPMT--FTAMNIFNINLATNINNAKFAFTVYAIASGMNLDQKLSIKE	403



FIG. 3D

59D.1	229	-----DL	EACITD	HKHILE	FRRIEAFIS	PMLIQI	FTVTAL	NVCIGLAAL	VFFVSE	-----PM	ARMYFI	FYSLAMP	LQIFP	SCFFGT	305						
23A.1	226	-----DL	VNCIRD	ONALYRL	LDVTKSL	VSYPMVQI	FVWIGIN	IAITLFL	VIFYVET	-----LY	DRIVYL	CFLLGIT	VQIPL	CMYGT	302						
33B.1	227	-----RKL	IEGIDH	RKLMKI	IRL	RSTLHLS	QGOFL	SSGINIS	ITLINIL	FFAEN	-----NF	AMLYAV	AVFAAML	IELF	PSCYMGI	304					
33B.2	229	-----KQI	IESIED	RKLMKIV	ELL	RSTMNIS	QGOFI	SSGNIS	ITLVNIL	FFADN	-----NF	AITYGV	WFLSMVL	FLF	FPCCYMG	306					
33B.3	231	-----RL	DIYIEQ	HKLLVR	FHNLS	VRTISE	VQLVOL	GCGGAT	LCII	VSYML	FEVGD	-----TIS	LVYL	VFFGVV	CVQI	EPSCYFAS	307				
2F.1	238	AWREEV	QELIEC	IRDLAR	VHRLRE	TIQRLV	SPCMAQ	FCVSA	AVOCT	VAMHFLY	VADDDH	-----DHT	AMIS	IVFFS	AVTLE	VFCYF	FGD	324			
22A.1	242	-----EEL	TECIRD	HRLLD	YVDAL	RPVFS	GTIFVQ	FLIGT	VLGLS	MINLM	FFEST	-----FW	TGVATC	LFMED	VSMET	FPFCY	LCN	318			
22A.2	242	-----KEL	ADGVRD	HRLLD	YVDAL	RSVFS	GTIFVQ	FLIGT	VLGLS	MINIM	FFEST	-----LST	GVAVL	FMSCV	SMDI	FPFCY	LCN	318			
47E.1	234	-----NK	VFALYQ	TSLDM	CND	-----LN	QCYQPI	ICAQ	FFISS	LLQCM	GLYFS	ITFA	-----QT	EGVYAS	FIATIT	IQAYI	YCYGGE	307			
46F.1	229	-----QQ	KENIRY	HTIVEL	SKTVER	LLCKPIS	VQIFCS	VLVIL	TANFYA	IAVLSD	-----RLE	LFKVY	TYQAC	MLIQI	FTLC	MYAG	306				
46F.2	228	-----AME	LRECA	AYNR	IVRFK	OLVEL	FIKPG	SVOL	MCSVL	VLSNLY	DMSTM	SIANG	DAIF	MLKTCI	YQVL	VMLQI	FTI	QYASN	309		
22C.1	223	EMNAEVR	HRLAQ	VVERH	NAID	FC	TDLTRO	FTVIVL	MHFL	SAAF	VILC	STIL	IMLNTS	-----SL	SGLTY	ICYI	IAALT	QI	FLYCF	GGN	306
24D.1	215	AEEARIV	REMEK	LVDRH	NEVAEL	TER	LSGV	VEITLA	HFNT	SSLIGT	SVVDIL	LFSG	-----LGI	VWVY	VTCA	VGVEI	FTLY	CLGGS	297		
43B.1	233	-----RL	ASCTAY	HTQVM	RYVWQ	LKLVAN	IVAE	AI	FGS	ITCS	LLFCL	NIVIT	-----SPT	QISIV	MYIL	TMLV	LYLT	YNNRAN	308		
47E.2	249	-----EFC	VRVR	FHQHI	IKLVG	KANRA	FNAG	FNAQ	LMASF	LISIS	TETMA	AAAA	-----VDP	KMAA	KFVLL	MLVAF	IQI	SLWC	VSGT	326	
25A.1	242	-----YM	FKS	LDGCI	KAHRT	MLNFC	DAIQ	PIIS	GTIFAQ	FTICGS	ILGI	IMIN	MVLFAD	-----Q	STRF	GIVY	WMV	ALLQI	FTPL	CFYCN	321



FIG. 3C

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590.1	R-----GLMPAMFPFDWLHST---	RNYVIANAYQIVGISFQLLQNYVSDCFPAVVLCLISSHIKMLNRYNRFEEVGLDPARDAEK----	228	
23A.1	L-----SLPMPMFPFDWKNSM---	VAYIGALVFQIEGYVQIMQCFAADSFPPPLVLYLISEQCQLLIRISEIGYGYKTLENEQ--	225	
33B.1	149	R-----NLMYLGMPFYDFQATA---	AIYWISFSYDAIGSSLLILENLANDSYPPITFCVVSGHVRLLIMRLSRIGHDVKLSSSENT--	226
33B.2	151	H-----KLLYPAMFPYDVQATE---	LIFWLSVTYQIAGVSLAILONLANDSYPPMTFCVVAGHVRLLAMRLSRIGQGPETIYLTG--	228
33B.3	149	I-SGNWELLYPAYFPFDLESNR---	FLGAVALGYQVFSMLVEGFQGLGNDITYPLTCLLAGHVRLLIMRLSRIGHDVKLSSSENT--	230
2F.1	156	P-----DRELLYPAMFGVDWMHST---	RNYVLINITYQIFGLIVOATQNCASDSYPPAFCLCLTGHMRALFLVRIRIGCRTEKSNKGQTYE	237
22A.1	166	R-----RHAWMYFPYIDSEQ----	FYMISS-IAECFLMTEATYMDLCTDVCPILISMLMARCHISLLKORLNLRSKPGRTEDEYL--	241
22A.2	166	R-----IHAWMYFPYVDPEKQ----	FYMISS-IAEVILRGWAVFMDLCTDVCPILISMVIAARCHITILLKORLNLRSKPGRTEDEYL--	241
47E.1	153	G-HAEPELPPFCLFPWNIHIR----	NWLSFIWSAFASGTGVVLPVAVSLDTIFCSFTSNLCAFFKIAQYKVVRFKGGSLKESQATL--	233
46F.1	152	H-----LPLKTYNPLGENTGS---	PAYWLLYCYQCLALSVCITNIGFDSLCSLFIFLKQCLDILAVRLDKIGRLITTSGGTVE--	228
46F.2	149	N---FGELPLAMLEVCSIEGWI----	CYMSQYLFHSICLLPTCVLNITYDSVAYSLCFLKVQLQMLVLRLEKLGVPVIEPQDNEKI--	227
22C.1	147	E-----LPFNIIILPSFAVOPG----	VFPLTYVLLTASGACTVFAFSFVDGFFCISCLYICGAFRLVQODIRRIFADLHGVDVFTF--	222
24D.1	145	-----MFPDLLLLRLP-----	LYPITYILVHWHGYYTVVCFVGADGFFLGFCLYFTVLLCLDDVCDLLEVENIEKSPSE--	214
43B.1	151	T-FFLPAHIFGLALPGVSMTSS---	PVMEVITYLAQLPTPLLLSMNMPFVSLFAGLAIFGKAMLQILVHRLGOTGGEEQSEEFQ--	232
47E.2	164	L-LGEGKLPHFSVYPFQWHRDLHPYTFWFLYIWQSLTSQHNLMSTLMWDMVGISTFLQATLNLKLLCIEIRKLGDMEVSDKRFHE--	248	
25A.1	163	H-----RVPNYTYPFINWRVD-RQOMVIQS-FLEYFTVGAYIYVATATDSYPPVIYVAALRTHILLKORLIYLGDPSPNEGSSDPS--	241	



FIG. 3B

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59D.1	73	TTFATCTACSVKCLLYAYNIKDVLEMERLRLDERVVGPEQRSIYGQ-----VRVQLRNVLVYFIGIYMPICALFAELSFLKEE	152
23A.1	68	SLTVTSLNLMKFCMYVAQLTKMVEVQSLIGQLDARVSGESERHN-----MTEHLLRMSKLFQITYAVVFIIAAVPVFETE	147
33B.1	68	HFTSECLFCSYKFFCFRKLKEIKTIEGLLOLDSRVESEEEERNYFNQ-----NPSRVARMLSKSYLVAAISAITATVAGLESTG	148
33B.2	70	PITACFFASFKFICFRKLSEIKETIILFKELDQALSRCEEFFNQ-----NTRREANFTWKSFIYAYGLSNISASVLEGGG	150
33B.3	69	TMSLTCVACSLKHVAHLYHLPOIVEIESLIEQLDTFIASEQEHRYRD-----HVHCHARRTRCLYISFGMIYALFLFGVFNQV	148
2F.1	75	TITITDIVANLKFANVVMVRKQLHEIRSLRLMDARARLVGDPEEISA-----LRKEVNIAGTERTFASIFVFGTLLSCVRVVVR	155
22A.1	88	EIGVNMYGSSFKCAFTLIGFKRQEAQVLLDQDKRCLSDKERSTVHR-----YVAMGNFFDILYHIFYSTFVVMNFPYFLE	165
22A.2	88	QIGVNMYGSSFKSYLTMMGYKKRQEAQMSLDELDKRCVCDEERTIVHR-----HVALGNFCYIFYHIAIYTSFLISNFLSFIMK	165
47E.1	65	VALLITILGLFKFSMILYLRDFKRLIDKFRLLMSNEAEQGEYVAEILNAANKQDQRMCTLFRTCELLAWALNSVPLVRMGLSYWLA	152
46F.1	65	EVKAIIFILATSAGHTTKL-LSIKANNVQMEELFRRLDNEEFRPRGANEELIFAAACERSKLRDFYGALSFAALSMILIPQFALDWS	151
46F.2	65	EILKVFFMFATEISCMAKL-LHLKLSRKLAGLVDM-LSPFEGVKSE--QEQMLEDRAVAVVRMNSYGIMSLGAASLILIVPCFD	148
22C.1	78	CPGTTKAVCVKLWVFFRS---NRRWAEIVQRILAILSLILLSGGTAT-----NAAFTLQPLIMGLYRWIVQLPGQT	146
24D.1	66	CPVASSILSLVKWVAIWY---QDELRSIIERRFYTLATQLTFLLLCC-----GFCTSTSYSVRHLIDNILRRTHGKDWIYETPEKM-	144
43B.1	65	FFFSAI FNALMRTLVIKRRQFEFLGQLATLFHSILDSTDEWGRGI--LRRAREARNLAILNLSASFIDIVGALFFEYKFPPIGVV	150
47E.2	85	VWISGMALVFTKIFYMHLR---COEIDELISDFEYNRELPHNIDEE-----VLGWQRCLCYVIESGLYINCFCLVNFFSAAIFLQP	163
25A.1	85	QLCLNTWCFAKJFFTLIVYTHRLRLANKHFDELKCYCVKPAEKRYRD-----MVATITRLVLTFFVWVYVLYATSTLLDGLLH	162



FIG. 3A

59D.1	1	-----MAEVRVDSLEFFKSHWTAWRVLGVAHFRVENWKNLVFYISVSNLLVTLCPVHLGISLFRN---RTITEDILNL	72
23A.1	1	-----MKLSETLKIDYFRVQLNMRICGA-----LDLSEGRYWSWSMLLCILVYLPPTMLLRGVYS--FEDPIVENNFSL	67
33B.1	1	-----MDSRRKVRSENLYKTYWLYMRLLGV-----EGDYPRRLVDFTITSFITILFPVHLILGMYKK----PQIQVFRSL	67
33B.2	1	-----MDLKPRVIRSEDIYRTYWLVMHLLGL-----ESNFFLNRLDLVITIFVTIWPYTHLILGLFME---RSLGDVCKGL	69
33B.3	1	-----MWIIDLSFYRPFWICMRLLVP-TFFKDSSRPVQLYVVLLHILVTLWFPPLHLLHLLLL---PSTAEFFKNL	68
2F.1	1	-----MEKQEDFKLNTHSAVYHHVRVMEITGLMRPPGVSSLLYVVYSITVNLVVTVLPPLSLLARLLFT---TNMAGLCENL	74
22A.1	1	-MLSKFFPHIKEPLSERVKSDDAFIYLDVRVMSFGNTEPENKRWILPYKLWLAFTVNIWMLILLPTISISIEYLHRFKTFSAGEFLSSL	87
22A.2	1	-MLSQFFPHIKEPLSERVKSDDAFVYLDVRVMSFGNTPENKRWMDLHYKLWSTFVTLILFILLPTISVSVEYIQRKFTFSAGEFLSSI	87
47E.1	1	-----MDSFLQVQKSTIALLLGFDLFSENREMWKRPYRAMNVFSIAAIFPFI LAAVLHNW---KNVLLADAM	64
46F.1	1	-----MSKGVEIFYKGGQKAFENILSLWPQIERRWRIHQVNVYHVIVFWVLLFDLLLVLHV-----MANLSYMS	64
46F.2	1	-----MVTEDFYKYQVWYFQIL--GWQLPTWAADHQRRFQSNRFGFILVILFIMLLLF-SFEMLNNSQVR	64
22C.1	1	-----MTDSGQPAIADHFYRIPRISGLIVGLMPQRIRGGGGRPWHAHLLFVFAFAMVVVGAVGEVSYGCVHLDN-----LVVALEAF	77
24D.1	1	-----MERHYFMVPKFALSIGFYPEQKR-----TVLVKLWSFFNFILTYGCAEAYYGIHYIPI----NIATALLDAL	65
43B.1	1	-----MTIEDIGLVGINVRMRHLAV--LYPTPGSSWRKFAFVLPVTAMNMQFVYLLRMWGD-----LPAFILNM	64
47E.2	1	MNDSGYQSNLSLLRVFLDEFRSVLRQESGLIPRLAFYVYRAFLSPLRYWINLFIMCNVMTIFWTMFVALPESK-----NVIEMGDDLL	84
25A.1	1	--MFGHFKLVYPAPISEPIQSRDSNAYMMETLNRNSGLN--LKNDFGIGRKIWRVFSFTYNMVLIPVSPFINYVIHLAEFPPELLQSL	84

FIG. 2A

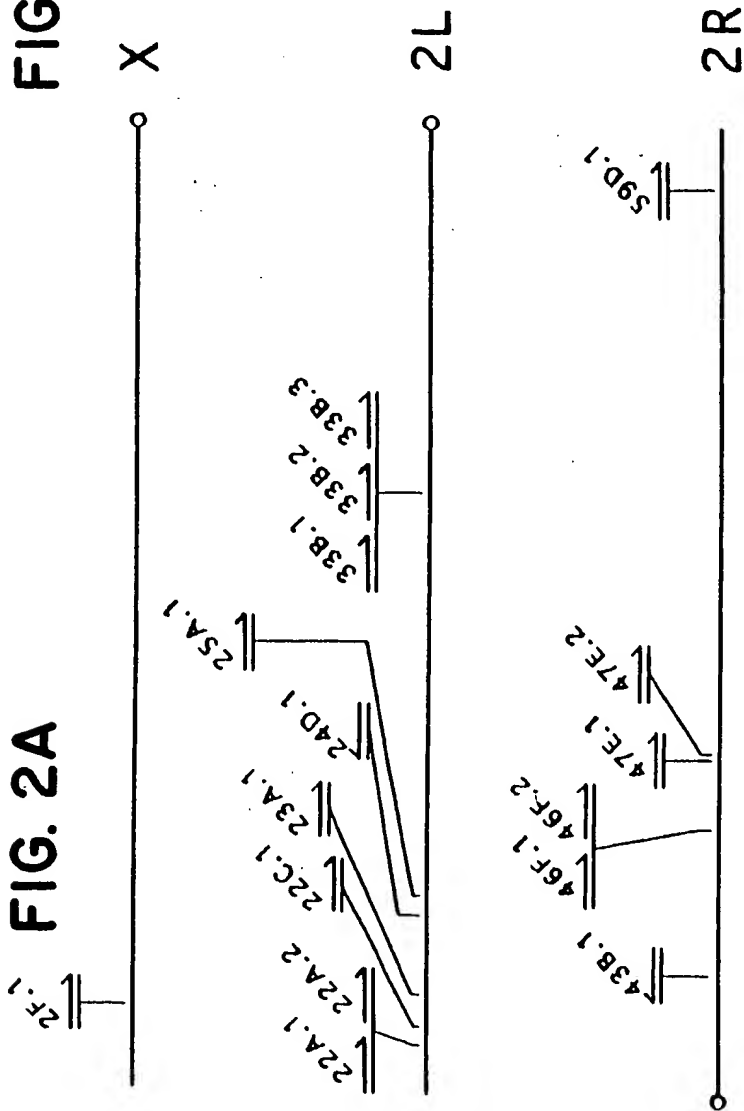


FIG. 2B

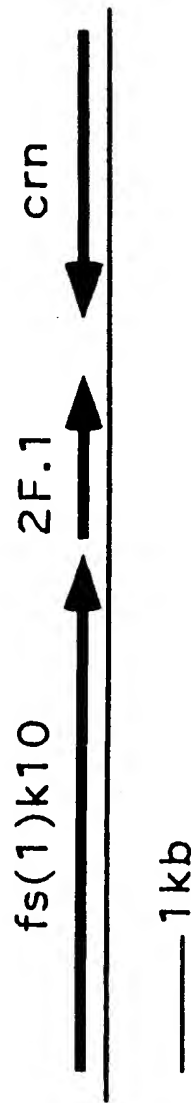
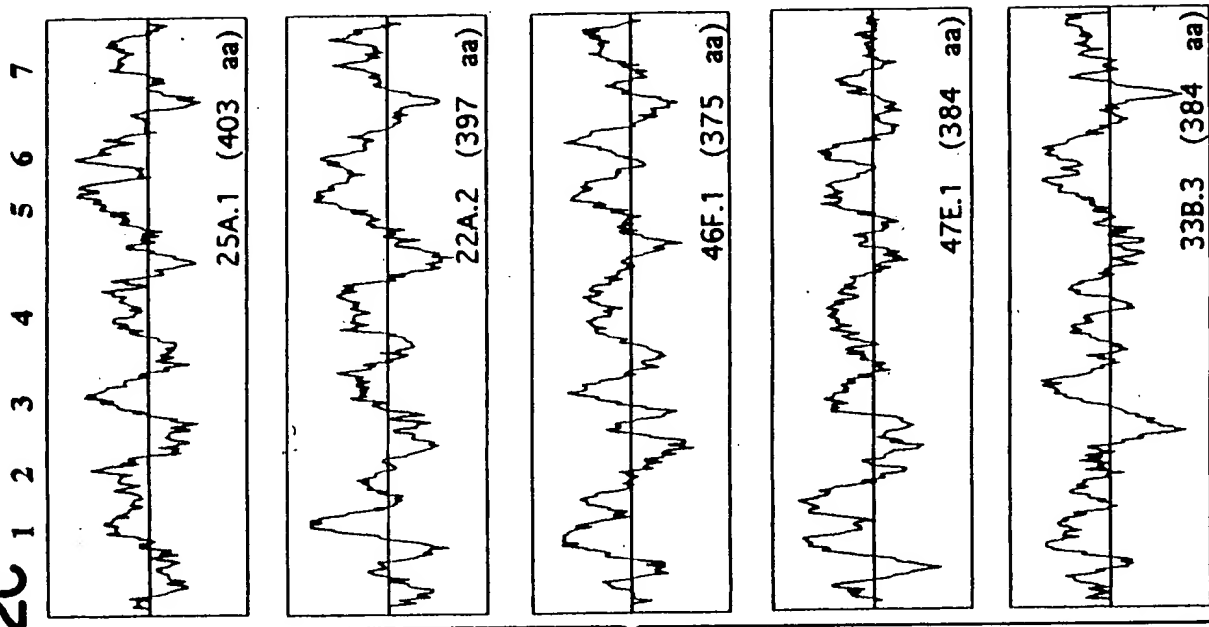


FIG. 2C



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FIG. 1A

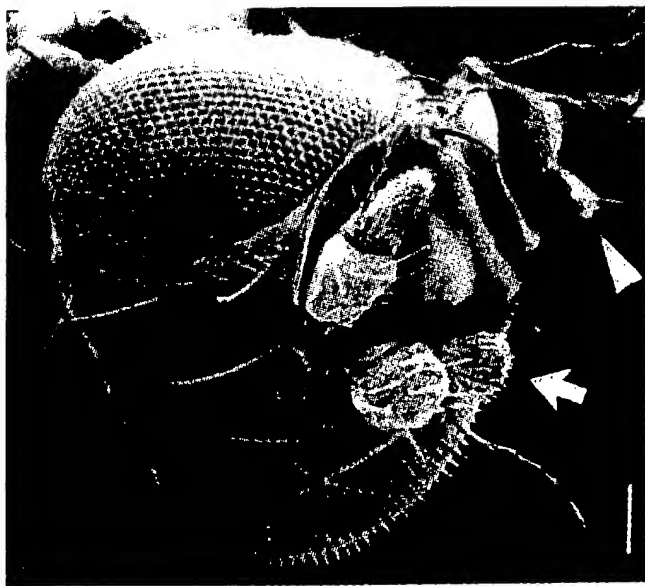
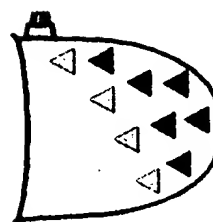


FIG. 1B

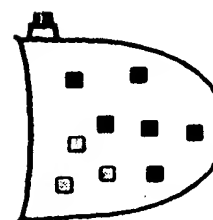


FIG. 1C



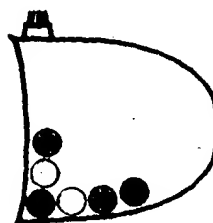
TRICHODEA

FIG. 1D



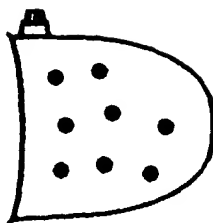
COELOCONICA

FIG. 1E



LARGE
BASICONICA

FIG. 1F



SMALL
BASICONICA